

CLAIMS

1. A sputtering target having a structure where the average crystallite size is 1nm to 50nm.
- 5 2. A sputtering target having a structure where the average crystallite size is 1nm to 5nm.
3. A sputtering target having a structure where the average crystallite size is 1nm to 2nm.
4. The sputtering target according to any one of claims 1 to 3, comprising an alloy having a three-component system or greater.
- 10 5. The sputtering target according to any one of claims 1 to 4, containing at least one element selected from among Zr, Pt, Pd, Fe, Co and Cu as its primary component in an atomic ratio of 50at% or more.
6. The sputtering target according to any one of claims 1 to 5, comprising the requirements of a metallic glass satisfying a three-component system, atomic radius difference of 12% or more and negative heat of mixing.
- 15 7. The sputtering target according to any one of claims 1 to 6, comprising an alloy having a three-component system or greater with Zr as its primary component, and further containing at least one or more elements selected from among Cu, Ni and Al.
- 20 8. The sputtering target according to any one of claims 1 to 6, comprising an alloy having a three-component system or greater with Pt as its primary component, and further containing at least one or more elements selected from among Pd, Cu and P.
- 25 9. The sputtering target according to any one of claims 1 to 6, comprising an alloy having a three-component system or greater with Pd as its primary component, and further containing at least one or more elements selected from among Cu, Ni and P.
- 30 10. The sputtering target according to any one of claims 1 to 6, comprising an alloy having a three-component system with Fe as its primary component, and

further containing B and at least one component selected from among Ti, V, Cr, Zr, Nb, Mo, Hf, Ta and W.

11. The sputtering target according to any one of claims 1 to 6, comprising an alloy having a three-component system with Co as its primary component, and
5 further containing at least one or more elements selected from among Fe, Ta and B.

12. The sputtering target according to any one of claims 1 to 6, comprising an alloy having a three-component system with Cu as its primary component, and further containing at least one or more elements selected from between Zr and Ti.

13. A manufacturing method of the sputtering target according to any one of
10 claims 1 to 13, wherein said sputtering target is manufactured by sintering gas atomized powder.